

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A wireless communication device, connected to an equipment having a plurality of input/output terminals, comprising:

interface means for connecting to the equipment having a plurality of input/output terminals;

connection information exchange means for exchanging information on an equipment connected to each input/output terminal, with other wireless communication devices;

storage means for storing information on the equipment connected to each input/output terminal; ~~and~~

information transmission/reception means for transmitting and receiving information on the equipment connected to input/output terminals which are switched according to the input/output switching operation of said equipment having a plurality of input/output terminals[.];

network formation means for forming a wireless network with the other wireless communication devices; and

transmission bandwidth reservation means for acquiring a predetermined wireless transmission channel and reserving transmission bandwidth with respect to a wireless communication device serving as a control station of the network according to input/output switching operations of said equipment having a plurality of input/output terminals, wherein

said information transmission/reception means transmits and receives information in a region in which said transmission bandwidth reservation is performed, manages information

on the equipment connected to each of said input/output terminals in association with the other wireless communication devices, and acquires the predetermined wireless transmission channel to perform wireless communication and then transmits and receives information according to input/output switching of said equipment having a plurality of input/output terminals.

Claim 2 (Currently Amended): A wireless communication device according to claim 1, wherein

information on the equipment connected to each of said input/output terminals is managed in association with the other wireless communication devices, and information on the equipment connected to each input/output terminal is transmitted and received according to the input/output switching of said equipment having a plurality of input/output terminals.

Claims 3-4 (Canceled).

Claim 5 (Currently Amended): A wireless communication method, in a wireless communication device connected to an equipment having a plurality of input/output terminals, comprising the steps of:

switching input/output of said equipment having a plurality of input/output terminals;
requesting bandwidth acquisition in which a predetermined wireless transmission channel is acquired to perform wireless communication according to said input/output switching;

returning bandwidth utilization notification in response to said bandwidth acquisition request;

requesting information from a selected wireless communication device according to said bandwidth utilization notification; and

transmitting information on an equipment connected to ~~each~~an input/output terminal in response to said request of information[[;]], wherein

information is transmitted and received in a region in which said transmission bandwidth reservation is performed, information on equipment connected to each of said input/output terminals is managed in association with other wireless communication devices, according to the input/output switching of said equipment having a plurality of input/output terminals, a predetermined wireless transmission channel is acquired to perform wireless communication, and information is transmitted and received.

Claim 6 (Currently Amended): The wireless communication method according to claim 4 ~~or~~ 5, further comprising the steps of:

requesting each input/output terminal of said equipment having a plurality of input/output terminals to perform registration from each wireless communication device, and

returning registration notification in response to said registration request[[;]], wherein

information on the equipment connected to each of said input/output terminals is managed in association with other wireless communication devices.

Claims 7-9 (Canceled).

Claim 10 (Currently Amended): A wireless communication method, in a first wireless communication device connected to an equipment executing an application, comprising the steps of:

detecting a registration signal caused by operation of a registration switch of ~~the~~ other a second wireless communication device within a predetermined registration information reception time after detecting a registration signal caused by operation of a registration switch provided on ~~one the first~~ the first wireless communication device;

notifying the ~~other second~~ second wireless communication device of existence information concerning ~~one the first~~ the first wireless communication device after said predetermined registration information reception time has elapsed; and

exchanging a registration request that mutually registers link relations with ~~one the first~~ the first wireless communication device and transmitting the request, when said existence notification is received by the ~~other second~~ second wireless communication device[[.]], wherein

when in said registration signal detection step a registration signal caused by operation of the registration switch of the second wireless communication device is not detected within the predetermined registration information reception time after detecting a registration signal caused by operation of a registration switch provided on the first wireless communication device, and

in said existence notification step, link relation registration is not performed.

Claim 11 (Currently Amended): A wireless communication method ~~according to claim 10~~, in a wireless communication device connected to an equipment executing an application, comprising the steps of:

detecting a registration signal caused by operation of a registration switch of a second wireless communication device within a predetermined registration information reception time after detecting a registration signal caused by operation of a registration switch provided on the first wireless communication device;

notifying the second wireless communication device of existence information concerning the first wireless communication device after said predetermined registration information reception time has elapsed; and

exchanging a registration request that mutually registers link relations with the first wireless communication device and transmitting the request, when said existence notification is received by the second wireless communication device, wherein

when in said registration signal detection step a registration signal caused by operation of ~~at~~the registration switch of the ~~other~~second wireless communication device is not detected within ~~at~~the predetermined registration information reception time after detecting ~~at~~the registration signal caused by operation of ~~at~~the registration switch provided on ~~on~~the first wireless communication device,

in said existence notification step the ~~other~~second wireless communication device is notified a predetermined number of times of existence information concerning ~~on~~the first wireless communication device after said predetermined registration information reception time has elapsed; and

if there is no response from the ~~other~~second wireless communication device, link relation registration is not performed.

Claim 12 (Original): A wireless communication method according to claim 10,
wherein

in said registration signal detection step, when a plurality of registration signals caused by operation of registration switches of a plurality of other wireless communication devices are detected within a predetermined registration information reception time after detecting a registration signal caused by operation of a registration switch provided on one wireless communication device, subsequent processing is not performed.

Claim 13 (Original): A wireless communication method according to claim 10,
further comprising the step of mutually notifying registration with respect to the registration of said link relations, wherein

when said registration notification is encoded, encoding information is exchanged,
and application information is transmitted, data encoded according to said encoding information is transmitted.

Claim 14 (Original): A wireless communication method according to claim 13,
wherein

when said encoding information is exchanged while explicitly stating data input/output relations of equipment executing the same application as said application and application information is transmitted, data encoded according to said encoding information is transmitted.

Claim 15 (Canceled).

Claim 16 (New): A wireless communication device, connected to a main equipment having a plurality of input/output terminals, comprising:

interface means for connecting each input/output terminals of said main equipment;

control signal acquisition means for acquiring a control signal representing an input/output switching operation of said main equipment;

connection information exchange means for exchanging connection information corresponding to peripheral equipments which transmit/receive the signal inputted/outputted to each input/output terminal, with other wireless communication devices;

storage means for storing said connection information on the peripheral equipments;
and

communication means for communicating with said peripheral via said other wireless communication device, wherein

when said control signal acquisition means acquires said control signal, said communication means communicates with said peripheral equipment corresponding to the control signal by using said connection information, and

said interface means interfaces the signal which is inputted/outputted between said communication means and the input/output terminal selected by the control signal.